

Bellwork: 10/4/12

Find the equation of the line of the table shown below:

	x	y	
-3	18	2	-2
-3	15	0	-2
-3	12	-2	-2
-3	9	-4	-2
-3	6	-6	-2

$$m = \frac{-2}{-3} = \frac{2}{3}$$

$$y - 2 = \frac{2}{3}(x - 18)$$

$$y - 2 = \frac{2}{3}x - 12$$
$$+2 \qquad +2$$

$$y = \frac{2}{3}x - 10$$

Graphing Inequalities:

* To graph a line, it must be in

SLOPE INTERCEPT form.

* line is SOLID when \geq or \leq .

* line is DOTTED when $>$ or $<$.

* use a test point to shade:

if point is **TRUE**, shade that side

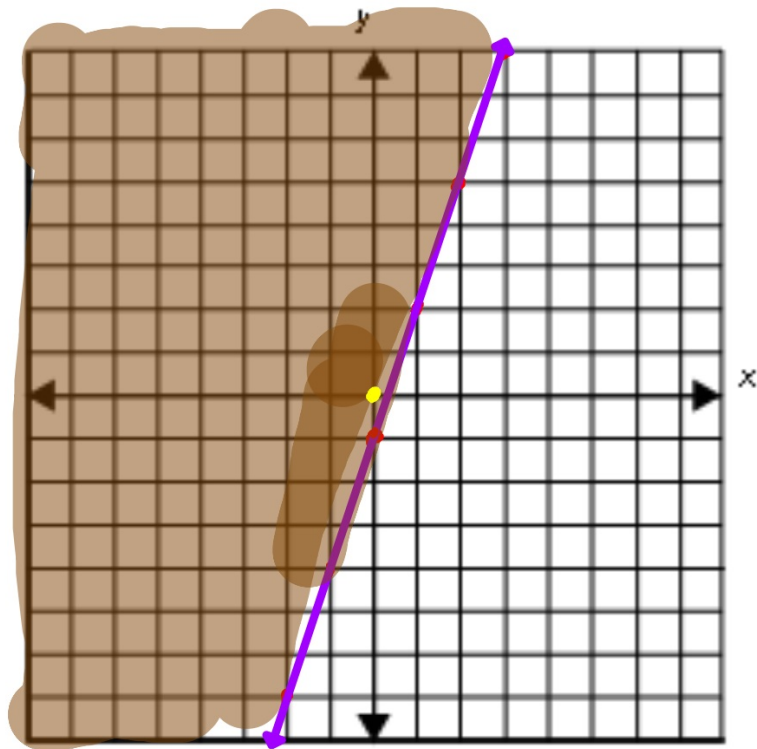
if point is **FALSE**, shade opposite.

Graph each inequality:

① $y \geq 3x - 1$

$0 \geq 3(0) - 1$

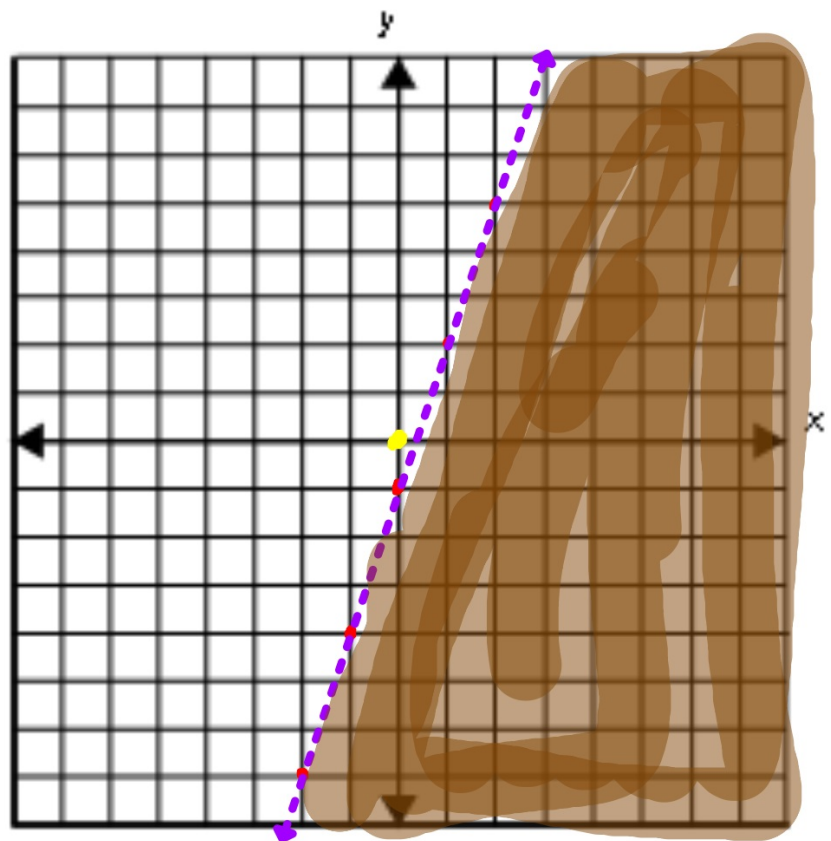
$0 \geq -1$



$$y < 3x - 1$$

$$0 < 3(0) - 1$$

$$0 < -1$$



$$\textcircled{3} \quad 5x + 2y \geq 10$$

$$\frac{2y}{2} \geq \frac{-5x+10}{2}$$

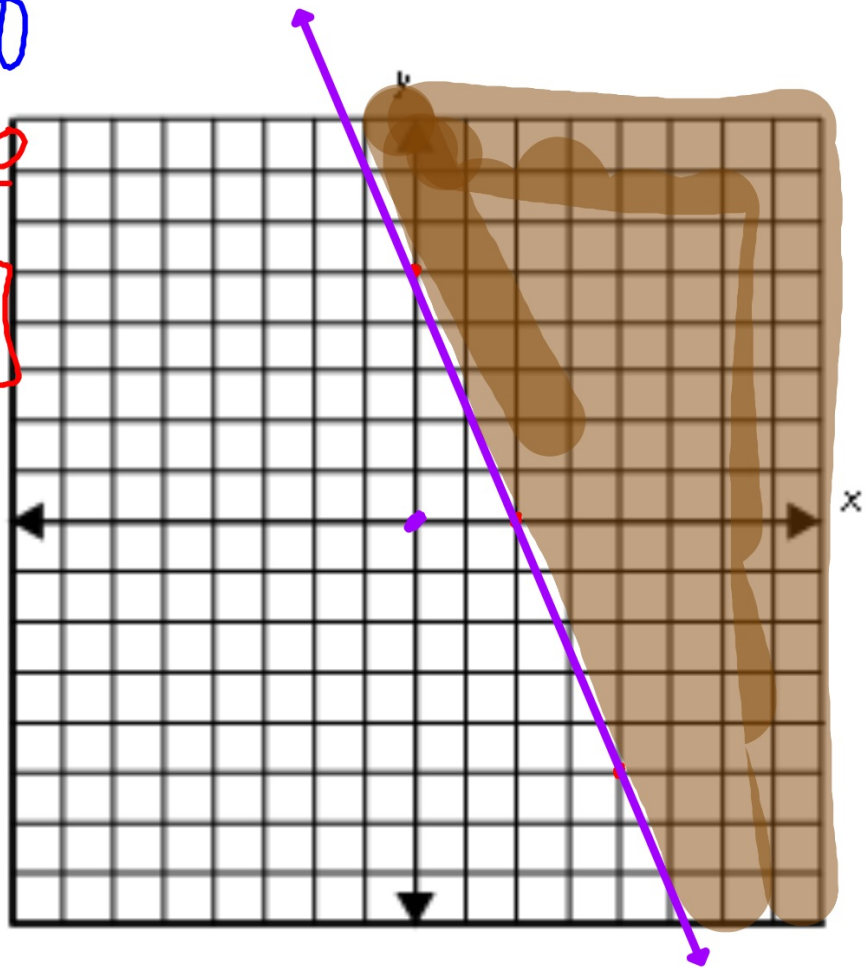
$$y \geq -\frac{5}{2}x + 5$$

$$5(0) + 2(0) \geq 10$$

$$0 + 0 \geq 10$$

$$0 \geq 10$$

FALSE



$$\textcircled{4} \quad 3x - 4y > 12$$

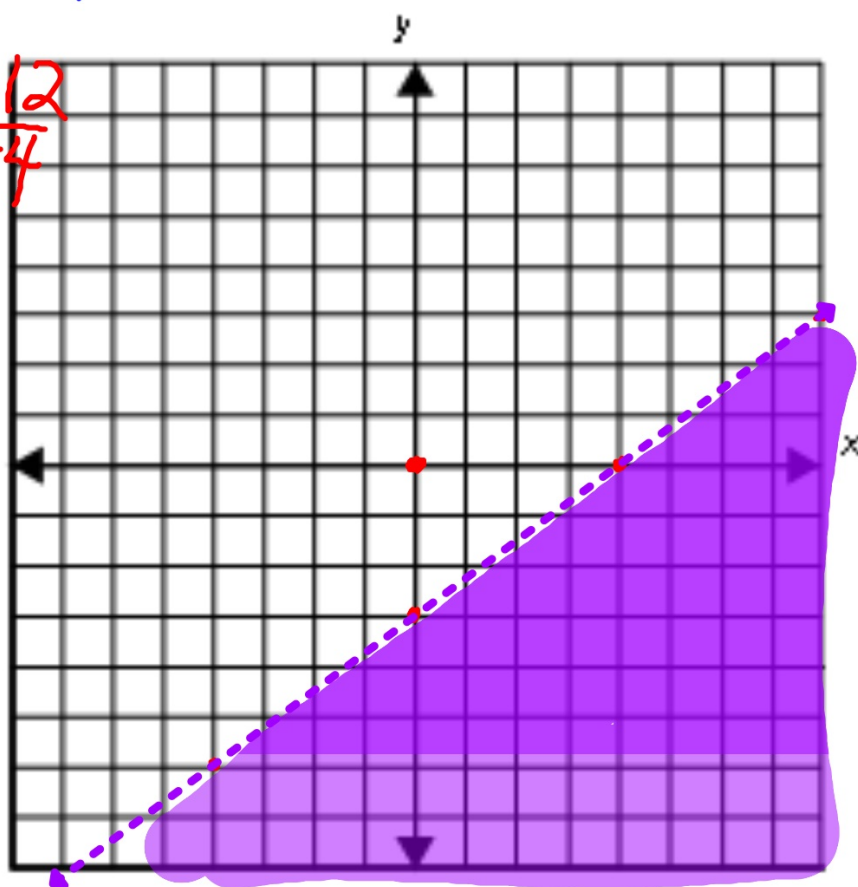
$$\frac{-4y}{-4} > \frac{-3x+12}{-4}$$

$$y < \frac{3}{4}x - 3$$

$$3(0) - 4(0) > 12$$

$$0 > 12$$

False



Homework: 10/4/12
graphing linear
inequalities
Pg. 1 #1-#8